

Miniature photoelectric sensor PST

Background suppression series

Operation Manual



Precautions

- Please make sure that the power supply voltage is within the rated voltage range before powering on
- The time from powering-on to normal detection of the sensor is 100ms, please ensure that the sensor is used after 100ms of powering-on
- When using different power sources for the sensor and load, be sure to turn on the power of the sensor first
- When the sensor is not used, it is recommended to cut off the power of the load first and then turn off the power of the sensor
- Do not subject the sensor to severe external forces (such as hammer hits, etc.) during installation, so as not to damage the sensor performance
- Avoid using thinner, alcohol or other organic solvents when cleaning

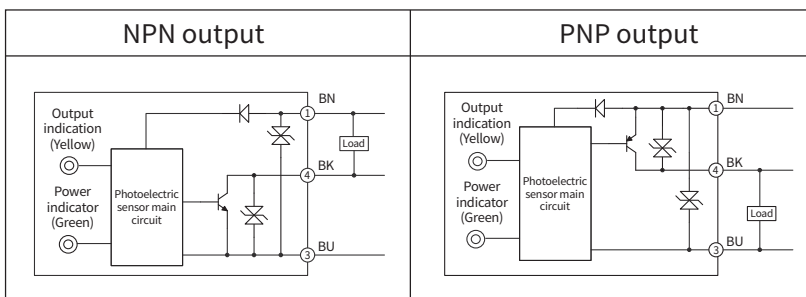
Safety Warning

- Do not use in an environment with flammable, explosive or corrosive gases
- Do not use in oil or chemical environments
- Do not use in a high humidity environment
- Do not use in direct sunlight
- Do not use in other environmental conditions that exceed the rated value
- Do not disassemble, service or modify this product without authorization

Scrap Treatment

- When the product is scrapped, please dispose of it as industrial waste

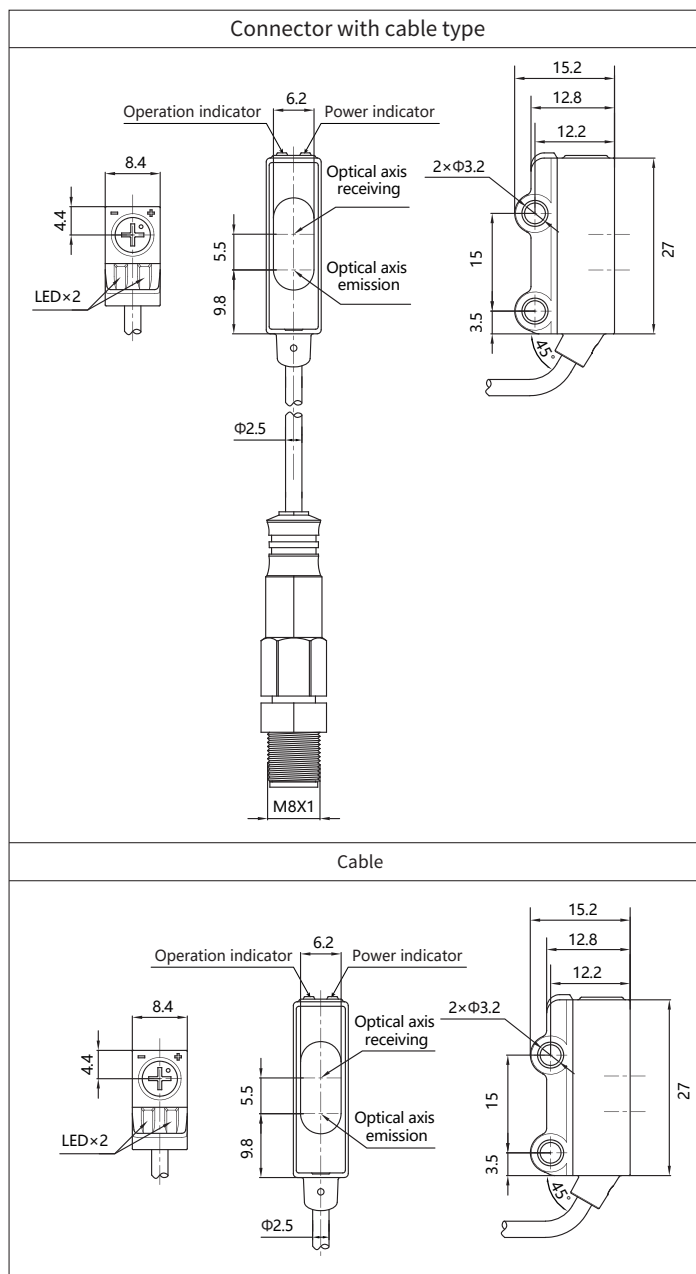
■ Wiring diagram



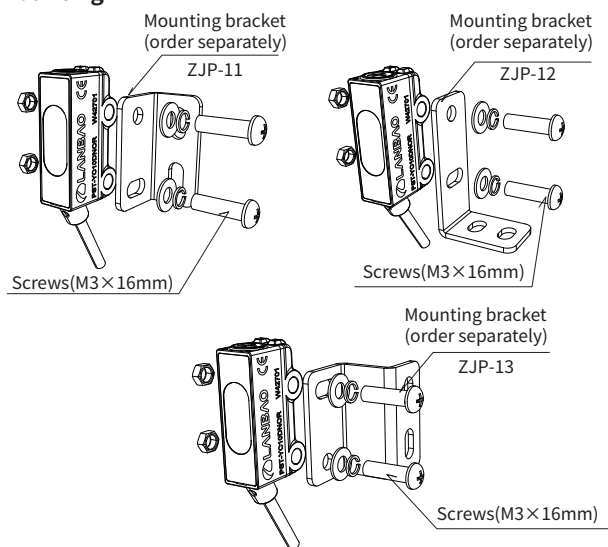
■ Technical specifications

Type		Backgroundsuppression			
Model	cable	NPN NO	PST-YC10DNOR	PST-YR15DNOR	PST-YR30DNOR
		NPN NC	PST-YC10DNCR	PST-YR15DNCR	PST-YR30DNCR
		PNP NO	PST-YC10DPOR	PST-YR15DPOR	PST-YR30DPOR
		PNP NC	PST-YC10DPCR	PST-YR15DPCR	PST-YR30DPCR
	Connector with cable type	NPN NO	PST-YC10DNOR-F3	PST-YR15DNOR-F3	PST-YR30DNOR-F3
		NPN NC	PST-YC10DNCR-F3	PST-YR15DNCR-F3	PST-YR30DNCR-F3
		PNP NO	PST-YC10DPOR-F3	PST-YR15DPOR-F3	PST-YR30DPOR-F3
		PNP NC	PST-YC10DPCR-F3	PST-YR15DPCR-F3	PST-YR30DPCR-F3
Detection distance		10cm	15mm	30mm	
Detection of test		0.5...12cm	4...18mm	1...36mm	
Dead zone		<5mm	<4mm	<1mm	
Standard target		100*100mm white card			
Smallest detector		Φ1mm above opaque objects			
Light spot size		3mm@100mm			
Color sensitivity		85%			
Hysteresis		<20%			
Hysteresis		10...30VDC			
Consumption current		≤15mA			
Consumption current		≤50mA			
Voltage drop		≤1.5V			
Circuit protection		Red light(680nm)			
Circuit protection		Short circuit protection, overload protection, reverse polarity protection			
Indicator		Green: Power Indicator ;Yellow: Output indication			
Response time		<1ms			
Anti ambient light		Sunshine interference ≤10,000 lux; Incandescent light interference ≤3,000 lux			
Operating temperature		-20...55 °C			
Storage temperature		-30... 70 °C			
Protection degree		IP67			
Certified product		CE			
Housing material		ABS			
Lens		PMMA			
Weight		25g(2m cable),10g(0.2m connector with cable type)			
Accessories		M3 Screws(length16mm), Nut×2, Operation manual			

■ Dimensions



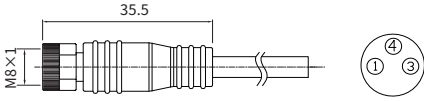
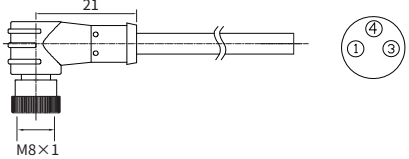
■ Mounting



Note: When installing this product, please keep the tightening torque below $0.5N \cdot m$

■ Accessory Dimensions

The following accessories need to be ordered separately except that PST series are with standard M3 screws

M8 Connector QE8-N3F2	M8 Connector QE8-N3G2	
		
Mounting bracket ZJP-11	Mounting bracket ZJP-12	Mounting bracket ZJP-13
